

What is claimed is:

1. A drive circuit of a plasma display panel having scan electrodes and sustain electrodes that realizes display by discharge that is generated by shifting potential between said scan electrodes and said sustain
5 electrodes, comprising:

a first sustain driver circuit for both controlling potential on said scan electrode side and effecting control such that, when said scan electrode side is at the power-supply potential, this potential is used to raise the
10 potential of said sustain electrode side;

a second sustain driver circuit for both controlling potential on said sustain electrode side and effecting control such that, when said sustain electrode side is at the power-supply potential, this potential is used to raise
15 the potential of said scan electrode side;

a control circuit that controls the operation of said first and second sustain driver circuits to repeat shifting of the potential between said scan electrodes and said sustain electrodes; and

20 a junction means for connecting said first sustain driver circuit and said second sustain driver circuit.

2. A drive circuit of a plasma display panel according to claim 1, wherein said first sustain driver circuit comprises:

a first switching element for clamping said scan
5 electrodes to the power-supply potential;

a second switching element for clamping said scan
electrodes to the ground potential;

a third switching element for both lowering the
potential of said scan electrode side and raising the
10 potential of said sustain electrode side by causing current
to flow from said first sustain driver circuit to said
second sustain driver circuit when said scan electrode side
is at the power-supply potential; and

a first coil that is connected between said third
15 switching element and said second sustain driver circuit;
and wherein said second sustain driver circuit
comprises:

a fourth switching element for clamping said sustain
electrodes to the power-supply potential;

20 a fifth switching element for clamping said sustain
electrodes to the ground potential;

a sixth switching element for both lowering the
potential of said sustain electrode side and raising the
potential of said scan electrode side by causing a current
25 to flow from said second sustain driver circuit to said
first sustain driver circuit when said sustain electrode
side is at the power-supply potential; and

a second coil that is connected between said sixth
switching element and said first sustain driver circuit.

3. A drive circuit of a plasma display panel according to claim 2 wherein:

said first sustain driver circuit includes a first diode that regulates the direction of current that flows
5 between said first sustain driver circuit and said second sustain driver circuit to only the direction from said second sustain driver circuit to said first sustain driver circuit; and

said second sustain driver circuit includes a second
10 diode that regulates the direction of current that flows between said second sustain driver circuit and said first sustain driver circuit to only the direction from said first sustain driver circuit to said second sustain driver circuit.

4. A drive circuit of a plasma display panel according to claim 3 wherein said first sustain driver circuit includes a third diode for preventing current from flowing to the power-supply voltage side by way of said
5 first switching element.

5. A drive circuit of a plasma display panel according to claim 3 wherein said second sustain driver circuit includes a fourth diode for preventing current from flowing to the power-supply voltage side by way of said

5 fourth switching element.

6. A drive circuit of a plasma display panel according to claim 3 wherein said first and second sustain driver circuits each includes a group of clamp diodes for absorbing spike voltage that is caused by counter-
5 electromotive force in inductance that is present in said first and second coils as well as in said junction means.

7. A drive circuit of a plasma display panel according to claim 4 wherein said first and second sustain driver circuits each includes a group of clamp diodes for absorbing spike voltage that is caused by counter-
5 electromotive force in inductance that is present in said first and second coils as well as in said junction means.

8. A drive circuit of a plasma display panel according to claim 5 wherein said first and second sustain driver circuits each includes a group of clamp diodes for absorbing spike voltage that is caused by counter-
5 electromotive force in inductance that is present in said first and second coils as well as in said junction means.

9. A drive circuit of a plasma display panel according to claim 6 wherein:

said first diode is provided on the side of said first

and second switching elements from said clamp diode group;
5 and

said second diode is provided on the side of said
fourth and fifth switching elements from said clamp diode
group.

10. A drive circuit of a plasma display panel
according to claim 7 wherein:

said first diode is provided on the side of said first
and second switching elements from said clamp diode group;
5 and

said second diode is provided on the side of said
fourth and fifth switching elements from said clamp diode
group.

11. A drive circuit of a plasma display panel
according to claim 8 wherein:

said first diode is provided on the side of said first
and second switching elements from said clamp diode group;
5 and

said second diode is provided on the side of said
fourth and fifth switching elements from said clamp diode
group.

12. A drive circuit of a plasma display panel
according to claim 2 wherein said switching elements are

FET transistors.

13. A drive circuit of a plasma display panel according to claim 3 wherein said switching elements are FET transistors.

14. A drive circuit of a plasma display panel according to claim 4 wherein said switching elements are FET transistors.

15. A drive circuit of a plasma display panel according to claim 5 wherein said switching elements are FET transistors.

16. A drive circuit of a plasma display panel according to claim 6 wherein said switching elements are FET transistors.

17. A drive circuit of a plasma display panel according to claim 7 wherein said switching elements are FET transistors.

18. A drive circuit of a plasma display panel according to claim 8 wherein said switching elements are FET transistors.

19. A drive circuit of a plasma display panel according to claim 9 wherein said switching elements are FET transistors.

20. A drive circuit of a plasma display panel according to claim 10 wherein said switching elements are FET transistors.

21. A drive circuit of a plasma display panel according to claim 11 wherein said switching elements are FET transistors.